

Attorney Docket No. 87082/AEK

Customer No. 01333

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

Inventor(s):

Hwei-Ling Yau, et al.

Group Art Unit: 1794

Examiner: Betelhem

Shewareged

INKJET RECORDING
ELEMENT AND METHOD

Serial No.: 10/795,836

Filed: March 08, 2004

Commissioner for Patents
Alexandria, VA 22313-1450

Sir:

DECLARATION UNDER RULE 131

The undersigned, Hwei-Ling Yau, of Monroe County, New York,
declares that:

She has received a B.S. Degree in Chemistry from the National Taiwan University in 1979 and a PhD Degree in Polymer Science and Technology from the University of Illinois at Urbana-Champaign in 1985;

She has been employed as a research scientist for Eastman Kodak Co. in the area of material science and design for various imaging systems since 1985 and is presently a Program Leader for research projects at Kodak;;

She is a co-inventor in the above-captioned patent application, and her co-inventor, Wendy S. Krzemien, retired from Eastman Kodak several years ago and is not readily available at this time;

She is familiar with the references cited in the outstanding office action, and notes that all are obviousness rejections based on Gallo et al, US 2003/0107636 as the primary reference;

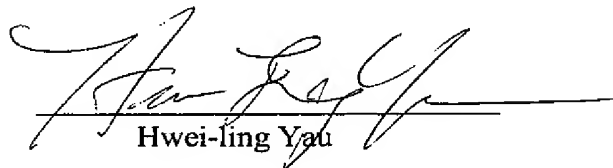
The attached Exhibits A, B, and C are pages from the laboratory notebook of co-inventor, Wendy S. Krzemien, which pages are dated prior to June 12, 2003, and witnessed. Exhibit A, notebook page 131, discusses the preparation of samples with fusible coatings for testing.

Exhibit B, notebook page 160, describes coating set "3165" which describes the coating of fusible coated samples that correspond to many of the examples in the present patent application. Such samples were sent immediately for swelling test typically within a day of coating and were sent for incubation and print quality, the results of which are reported in tabular Exhibit D, dated prior to June 12, 2003.

Exhibit C, notebook page 165, describes coating set "3200" which describes the coating of fusible coated samples that correspond to many of the examples in the present patent application. Such samples were sent immediately for swelling test typically within a day of coating and were sent for incubation and print quality, the results of which are reported in tabular Exhibit D, dated prior to June 12, 2003.

Exhibit D is a tabulation of the results of testing of data sets "3165" and "3200", dated prior to June 12, 2003. For convenience, the corresponding Example numbers in the application tables at pages 17 and 19 of the application have been added to the data lines of Exhibit D in circles where appropriate, so that the Examiner can verify that the values for the data in the samples of these exhibits correspond to the Examples in the application, and thus the invention results were appreciated and in the possession of the inventors prior to June 12, 2003.

The undersigned declares further that all statements made herein of the undersigned's own knowledge are true and all statements made on information and belief are believed to be true. These statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.


Hwei-ling Yau

Date: Jan, 5th, 2009

Date _____

Ctg. Date: [REDACTED]
 Satellite: [REDACTED]
 Charge number: 700-8220
 Support: 6RF1-77 Clear Estate
 Finish: 18 8 each

1873

Job C[illegible]

- (1) Print CC0027-127 (K4) and CC0027-105 (K1) on 5S1873-10 ---> -22 from Canon S750 printer, fuse and send for dark keeping 1W/38C/90%RH.
- (2) Print CC0027-127 (K4) and CC0027-105 (K1) on 5S1873-10 ---> -22 from Canon S750 printer, fuse and send for dark keeping 1W/38C/80%RH.
- (3) for 5S1873-10 ---> -22, fuse at the following condition using 1-inch samples:
300F/0.5 ips/60psi
280F/0.5 ips/60psi
280F/0.5 ips/30psi
and if 280F/0.5 ips/30psi show haziness, fuse another set at 280F/0.3 psi/30 psi.
- (4) Ask Butch to load CC0027-105-K1--->K4 in bk, cyan, magenta, yellow cartridges of Epson 880 print print skull picture on 5S1873-10, fuse and check on density in Dmax area. If density is up in 3.0 range, print on -11 to -22.
- (5) repeat (4) using CC0027-127 inks.

Signature _____

Witness

Notebook No.

Date

Problem:

205196

3165

City, Date
Sample No.
Change number
Support: BFF-177 & Calypso (Day/Night support)
Plastic: handroll

SS-Melt No.	Composition (mg/100)	Material source	conc.	Wet Load
1	250.0 Gel-4 100.0 XaOy 450.0 W-213 6.0 BVSM 6.0 10G	Gel-9606 Witco HAR-3179 FAC-0555	11.68% 14.90% 30.00% 1.80% 10.00%	7.00
2	225.0 Gel-4 100.0 XaOy 475.0 W-213 6.6 BVSM 6.0 10G	Gel-9606 Witco HAR-3179 FAC-0555	11.68% 14.90% 1.90% 10.00%	7.00
3	200.0 Gel-4 100.0 XaOy 500.0 W-213 6.0 BVSM 6.0 10G	Gel-9606 Witco HAR-3179 FAC-0555	11.68% 14.90% 1.80% 10.00%	7.00
4	200.0 Gel-4 100.0 XaOy 500.0 W-213 10.0 BVSM 6.0 10G	Gel-9606 Witco HAR-3179 FAC-0555	11.68% 14.90% 1.80% 10.00%	7.00
5	300.0 Gel-4 0.0 XaOy 500.0 W-213 6.0 BVSM 6.0 10G	Gel-9606 Witco HAR-3179 FAC-0555	11.68% 14.90% 1.80% 10.00%	7.00
6	250.0 Gel-4 0.0 XaOy 550.0 W-213 6.0 BVSM 6.0 10G	Gel-9606 Witco HAR-3179 FAC-0555	11.68% 14.90% 1.80% 10.00%	7.00
7	200.0 Gel-4 0.0 XaOy 600.0 W-213 6.0 BVSM 6.0 10G	Gel-9606 Witco HAR-3179 FAC-0555	11.68% 14.90% 1.80% 10.00%	7.00
8	200.0 PVA-EO (WO-320) 100.0 XaOy 500.0 W-213 20.0 DHD 6.0 10G	Nippon Ghoseal Witco FAC-0555	9.89% 14.90% 30.00% 10.00%	7.00
9	250.0 PVA-EO (WO-320) 100.0 XaOy 450.0 W-213 20.0 DHD 6.0 10G	Nippon Ghoseal Witco FAC-0555	9.89% 14.90% 30.00% 10.00%	7.00

SS-Melt No.	Composition (mg/100)	Material source	conc.	Wet Load
10	300.0 PVA-EO (WO-320) 100.0 XaOy 400.0 W-213 20.0 DHD 6.0 10G	Nippon Ghoseal Witco FAC-0555	9.89% 14.90% 30.00% 10.00%	7.00
11	300.0 PVA-EO (WO-320) 0.0 XaOy 500.0 W-213 20.0 DHD 6.0 10G	Nippon Ghoseal Witco FAC-0555	9.89% 14.90% 30.00% 10.00%	7.00
12	250.0 PVA-EO (WO-320) 0.0 XaOy 550.0 W-213 20.0 DHD 6.0 10G	Nippon Ghoseal Witco FAC-0555	9.89% 14.90% 30.00% 10.00%	7.00
13	200.0 PVA-EO (WO-320) 0.0 XaOy 600.0 W-213 20.0 DHD 6.0 10G	Nippon Ghoseal Witco FAC-0555	9.89% 14.90% 30.00% 10.00%	7.00
14	300.0 Gel-5 0.0 XaOy 500.0 W-213 6.0 BVSM 6.0 10G	gel-55 Witco HAR-3179 FAC-0555	14.63% 14.90% 1.80% 10.00%	8.00
15	250.0 Gel-5 0.0 XaOy 550.0 W-213 6.0 BVSM 6.0 10G	gel-55 Witco HAR-3179 FAC-0555	14.63% 14.90% 1.80% 10.00%	8.00
16	200.0 Gel-5 0.0 XaOy 600.0 W-213 6.0 BVSM 6.0 10G	gel-55 Witco HAR-3179 FAC-0555	14.63% 14.90% 1.80% 10.00%	8.00
17	200.0 Gel-5 100.0 XaOy 500.0 W-213 6.0 BVSM 6.0 10G	gel-55 Witco HAR-3179 FAC-0555	14.63% 14.90% 1.80% 10.00%	8.00
18	200.0 Gel-5 100.0 XaOy 500.0 W-213 10.0 BVSM 6.0 10G	gel-55 Witco HAR-3179 FAC-0555	14.63% 14.90% 1.80% 10.00%	8.00
19	300.0 Emulm (96/5), 753 nm, Caloric 575.0 W-320 25.0 GP-50-A(modified dimethyl silo 20.0 Zonyl FSN	CC0125-76 Witco Genesee Polymer FAC-0029	49.84% 34.50% 50.00% 40.00%	8.00

SS-Melt No.	Composition (mg/100)	Material source	conc.	Wet Load
20	3000.0 Em-100, 808 nm, Caloric SL 575.0 W-320 25.0 GP-50-A(modified dimethyl silo 20.0 Zonyl FSN	CC167-1378 Witco Genesee Polymer FAC-0029	54.40% 34.50% 50.00% 40.00%	8.00
21	3000.0 Em-100, 715 nm, Caloric SL 575.0 W-320 25.0 GP-50-A(modified dimethyl silo 20.0 Zonyl FSN	CC167-1278 Witco Genesee Polymer FAC-0029	50.70% 34.50% 50.00% 40.00%	8.00
22	3000.0 Em-100, 603 nm, Caloric SL 575.0 W-320 25.0 GP-50-A(modified dimethyl silo 20.0 Zonyl FSN	CC167-77 Witco Genesee Polymer FAC-0029	52.20% 34.50% 50.00% 40.00%	8.00
23	3000.0 Em-100, 742 nm, Caloric SL 575.0 W-320 25.0 GP-50-A(modified dimethyl silo 20.0 Zonyl FSN	CC167-1588 Witco Genesee Polymer FAC-0029	51.60% 34.50% 50.00% 40.00%	8.00
24	3000.0 Em-100, 768 nm, Caloric SL 575.0 W-320 25.0 GP-50-A(modified dimethyl silo 20.0 Zonyl FSN	CC167-1608 Witco Genesee Polymer FAC-0029	51.30% 34.50% 50.00% 40.00%	8.00
25	3000.0 Em-100, 777 nm, Caloric SL 575.0 W-320 25.0 GP-50-A(modified dimethyl silo 20.0 Zonyl FSN	CC167-1628 Witco Genesee Polymer FAC-0029	52.00% 34.50% 50.00% 40.00%	8.00
26	3000.0 Em-100, 777 nm, Caloric SL 575.0 W-320 25.0 GP-50-A(modified dimethyl silo 20.0 Zonyl FSN	CC167-1648 Witco Genesee Polymer FAC-0029	52.80% 34.50% 50.00% 40.00%	8.00
27	3000.0 Em-100/62F352 (95/5), 777 nm 575.0 W-320 25.0 GP-50-A(modified dimethyl silo 20.0 Zonyl FSN	CC167-1668 Witco Genesee Polymer FAC-0029	55.30% 34.50% 50.00% 40.00%	8.00
28	3000.0 Em-100/62F352 (97.5/2.5), 777 575.0 W-320 25.0 GP-50-A(modified dimethyl silo 20.0 Zonyl FSN	CC167-1688 Witco Genesee Polymer FAC-0029	54.20% 34.50% 50.00% 40.00%	8.00
29	3000.0 Emulm (96/5), 753 nm, Caloric 575.0 W-320 25.0 GP-50-A(modified dimethyl silo 20.0 Zonyl FSN	CC167-1548 Witco Genesee Polymer FAC-0029	53.80% 34.50% 50.00% 40.00%	8.00
30	3000.0 Emulm (96/5), 753 nm, Caloric 575.0 W-320 25.0 GP-50-A(modified dimethyl silo 20.0 Zonyl FSN	CC167-1568 Witco Genesee Polymer FAC-0029	53.80% 34.50% 50.00% 40.00%	8.00
31	3000.0 Emulm (96/5), 753 nm, Caloric 575.0 W-320 25.0 GP-50-A(modified dimethyl silo 20.0 Zonyl FSN	CC167-1588 Witco Genesee Polymer FAC-0029	53.80% 34.50% 50.00% 40.00%	8.00
32	3000.0 Emulm (96/5), 753 nm, Caloric 575.0 W-320 25.0 GP-50-A(modified dimethyl silo 20.0 Zonyl FSN	CC167-1608 Witco Genesee Polymer FAC-0029	54.20% 34.50% 50.00% 40.00%	8.00

1000 = 380C/90% 1WK *Sanj 4/15*
2000 = 380C/80% 1WK
3000 = 1WK 5ppm Ozone Chamber
4000 = 1WK H1D
100 = Canon W-2200 CC0250-25 Aig
200 = Epson 1280 CC0250-15B

City, Date
Sample No.
Change number: 20795
Support: BFF-177, Calypso (Day/Night support)
Dryer Setting: see diagram below
Ventilation: see diagram below
Plastic: handroll

- Change threading in the conditioning section (following children) to minimize vertical conveyances.
- Adjust air pressure to neutral in children (5 mm manual is close for starters).
- Keep hopper at 40 C.
- ALL coating drums CLOSED.
- Turn CDT on to coat both faces.
- Take out in-between from bottom layer to conserve top layer melt #19.
- Used displacement pump for top layer.

55-3158		01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
2nd Pass	Grid Size (D.B.D.P.): 750/600																															
	Dryer #1 (D.B.D.P.): 750/600																															
	Dryer #2 (D.B.D.P.): 750/600																															
machine speed: 4 ft/min																																
1st Pass	Grid Size (D.B.D.P.): 900/600																															
	Dryer #3 (D.B.D.P.): 900/600																															
	Dryer #4 (D.B.D.P.): 750/600																															
	machine speed: 15 ft/min																															
10 ft mesh																																
Dryer #4 was set at 750 ft by mistake.																																

Signature

[Handwritten Signature]

The foregoing disclosed to me on

Witness

[Handwritten Signature]

Exhibit D

5S-3165	Bottom Layer (mg/t2)	Material source	Fusible Layer (mg/t2)	Material source	Ctg Quality	swell of bottom layer (mils)	swell of bottom layer (ums)	wt of water being absorbed by 1 ft2 of coating	swell of bottom layer (mils)	cracks	used at 300F/0.5psi/60psi Image quality Epson 520	stain resistance 5 min. Ponceau red	distorted test 5.16 mm
1	250.0 Gel-4 100.0 XcDy 450.0 W-213 8.0 BVSM 6.0 10G	Gel-9606 Wilco HAR-3179 FAC-0555	3000.0 EmMn (95/5), 753 nm, Cationic 575.0 W-320 25.0 GP-50-A(modified dimethyl silico 20.0 Zonyl FSN	CC0125-78 Wilco Genesee Polymer FAC-0029	some cracks not very obvious	0.28	7.112	0.65	0.616	1	almost no bleed	no stain very faint haze	fair
2	225.0 Gel-4 100.0 XcDy 475.0 W-213 8.0 BVSM 6.0 10G	Gel-9606 Wilco HAR-3179 FAC-0555	as 01		no cracks some air bubbles	0.2	6.08	0.47	0.583	-1	no bleed	no stain very faint haze	fair
3	200.0 Gel-4 100.0 XcDy 500.0 W-213 6.0 BVSM 6.0 10G	Gel-9606 Wilco HAR-3179 FAC-0555	as 01		no cracks some air bubbles	0.14	3.556	0.33	0.408	-1	almost no bleed	no stain very faint haze	fair
4	200.0 Gel-4 100.0 XcDy 500.0 W-213 10.0 BVSM 6.0 10G	Gel-9606 Wilco HAR-3179 FAC-0555	as 01		no cracks some air bubbles	0.17	4.318	0.40	0.496	-1	no bleed	no stain slight haze	fair
5	300.0 Gel-4 500.0 W-213 8.0 BVSM 6.0 10G	Gel-9606 Wilco HAR-3179 FAC-0555	as 01		no cracks some air bubbles	0.16	4.064	0.37	0.468	-1	very slight bleed	no stain slight haze	
6	250.0 Gel-4 550.0 W-213 8.0 BVSM 6.0 10G	Gel-9606 Wilco HAR-3179 FAC-0555	as 01		no cracks some air bubbles	0.23	5.842	0.54	0.670	-1	very slight bleed	no stain slight haze	
7	200.0 Gel-4 600.0 W-213 6.0 BVSM 6.0 10G	Gel-9606 Wilco HAR-3179 FAC-0555	as 01		no cracks some air bubbles	0.44	11.178	1.03	1.283		very slight bleed	no stain slight haze	
8	200.0 PVA-EO (WO-320) 100.0 XcDy 500.0 W-213 20.0 DHD 6.0 10G	Wipon Ghosel Wilco FAC-0555	as 01		appears to be flow after coating	0.23	5.842	0.54	0.670	-1	very slight bleed some small cracks hazier than gelatin	light stain hazy	
9	250.0 PVA-EO (WO-320) 100.0 XcDy 450.0 W-213 20.0 DHD 6.0 10G	Wipon Ghosel Wilco FAC-0555	as 01		appears to be flow after coating	0.23	5.842	0.54	0.670	-1	very slight bleed some small cracks slightly hazier than gel	light stain hazy	
10	300.0 PVA-EO (WO-320) 100.0 XcDy 400.0 W-213 20.0 DHD 6.0 10G	Wipon Ghosel Wilco FAC-0555	as 01		some cracks not very obvious	0.41	10.414	0.96	1.195	1	very slight bleed lots of small cracks	light stain hazy	
11	300.0 PVA-EO (WO-320) 500.0 W-213 20.0 DHD 6.0 10G	Wipon Ghosel Wilco FAC-0555	as 01		cracks not very obvious	0.3	7.62	0.70	0.874	1	very slight bleed lots of small cracks	light stain hazy	
12	250.0 PVA-EO (WO-320) 550.0 W-213 20.0 DHD 6.0 10G	Wipon Ghosel Wilco FAC-0555	as 01		appear to be flow after coating	0.27	6.858	0.63	0.781		very slight bleed some small cracks	light stain hazy	
13	200.0 PVA-EO (WO-320) 600.0 W-213 20.0 DHD 6.0 10G	Wipon Ghosel Wilco FAC-0555	as 01		appear to be flow after coating	0.26	6.604	0.61	0.756		very slight bleed some small cracks	very light stain hazy	
14	300.0 Gel-5 500.0 W-213 6.0 BVSM 6.0 10G	Gel-55 Wilco HAR-3179 FAC-0555	as 01		some cracks	0.4	10.16	0.93	1.166	1	very slight bleed some small cracks	very light stain hazy	fair
15	250.0 Gel-5 550.0 W-213 6.0 BVSM 6.0 10G	Gel-55 Wilco HAR-3179 FAC-0555	as 01		very mild cracks air bubbles	0.24	6.096	0.56	0.700	1	slight bleed	very light stain hazy	fair
16	200.0 Gel-5 500.0 W-213 6.0 BVSM 6.0 10G	Gel-55 Wilco HAR-3179 FAC-0555	as 01		some air bubbles no cracks	0.19	4.826	0.44	0.554	-1	slight bleed some crack on sides	almost no stain hazy	fair
17	200.0 Gel-5 100.0 XcDy 500.0 W-213 6.0 BVSM 6.0 10G	Gel-55 Wilco HAR-3179 FAC-0555	as 01		cracks not obvious air bubbles	0.3	7.62	0.70	0.874	1	slight bleed some crack on sides	almost no stain hazy	
18	200.0 Gel-5 100.0 XcDy 500.0 W-213 10.0 BVSM 6.0 10G	Gel-55 Wilco HAR-3179 FAC-0555	as 01		air bubbles no cracks	0.14	3.556	0.33	0.408	-1	slight bleed some crack on sides	almost no stain hazy	fair
5S-3200	Bottom Layer (mg/t2)	Material source	Top Layer (mg/t2)	Material source	Ctg Quality						Image quality Epson 820	stain resistance 5 min. Ponceau red	
1	as bottom layer		2930.0 EmMn (96/5), 753 nm, Cationic 570.0 W-320 50.0 GP-50-A(modified dimethyl silico 20.0 Zonyl FSN	CC0125-78 Wilco Genesee Polymer FAC-0029							good very little bleeding	no stain very slight haze	poor (delaminated)
2	200.0 Gel-4 100.0 XcDy 500.0 W-213 6.0 BVSM 6.0 10G	Gel-9606 Wilco HAR-3179 FAC-0555	as 01			0.28	7.112	0.65	0.616	-1	slight bleeding cracks in fused image	no stain very slight haze	
5	200.0 Gel-4 100.0 XcDy 500.0 W-320 6.0 BVSM 6.0 10G	Gel-9606 Wilco HAR-3179 FAC-0555	as 01		cracks	0.22	5.688	0.51	0.541	1	slight bleeding hazy coating flaked off easily before fusing	no stain very slight haze fused sample is slightly hazy	
6	400.0 Gel-4 400.0 W-213 6.0 BVSM 6.0 10G	Gel-9606 Wilco HAR-3179 FAC-0555	as 01		cracks	0.32	8.128	0.75	0.933	1	slight bleeding cracks	no stain very slight haze	
7	200.0 Gel-4 600.0 W-213 6.0 BVSM 6.0 10G	Gel-9606 Wilco HAR-3179 FAC-0555	as 01		fine cracks not obvious	0.16	4.064	0.37	0.468	1	slight bleeding cracks in high ink area	no stain very slight haze	
8	400.0 Gel-4 400.0 W-320	Gel-9606 Wilco	as 01		cracks	0.77	19.555	1.80	2.245	1	some bleeding cracks	no stain very slight haze	

Page 2 of 2